

Index of Sales of General Merchandise in Small Towns and Rural Areas

The index of rural retail sales¹ is the third of a series of indexes of retail sales planned by the Bureau of Foreign and Domestic Commerce for use in tracing the movement of goods into the hands of final consumers.² Sales of general merchandise in the urban areas of the country are represented to some extent by the indexes of department store and variety store sales, but heretofore no general measure of retail trade in the less densely populated areas has been available, although one-half of the people of the United States live either on farms or in communities of less than 10,000 population.

As it is not feasible to secure reports from the tens of thousands of independent stores doing business in small communities, the indexes have been prepared from data supplied by large mail order houses and a chain store system which also serves the rural population. The companies which have cooperated in supplying figures are: Chicago Mail Order House, Montgomery Ward & Co., Sears, Roebuck & Co., and J. C. Penney Co.

While the figures obtained provide a fairly large sample of rural sales, it should be noted that this sample is not entirely representative. The character of the business done by small, independent rural stores is not identical with that of the large companies, and the trend of their sales may differ from that of the larger units. Despite its obvious limitations, however, the index should provide a better indication of the volume of rural purchasing of general merchandise than is provided by the sales of individual companies.

For the 3 mail order companies only those sales made by mail (the bulk of which go to persons in communities of less than 10,000 population) have been used; the sales of local retail stores maintained by 2 of these companies were excluded from the index, because it was felt that they represented too large a volume of urban trade.³

The total sales of the 4 companies, as used for the index, were about 700 million dollars in 1920. This figure represents nearly one-fifth of all general merchandise sales in places of less than 30,000 population as shown by the 1920 Census of Distribution.

Figures were provided by the J. C. Penney Co. comparing sales for each month with the sales of the same stores in the corresponding month of the preceding year, thus making it possible to eliminate the effect of expansion in the number of stores.⁴

The index constructed from the sales of these companies is an arithmetic average of weighted relatives. The figures of each firm were adjusted to an average daily sales basis and then converted to relatives. These relatives were multiplied by the respective weights and the four separate series were then added together. The final index was computed from the combined series, using the monthly average for the years 1920-31 as 100.

In placing the sales totals on an average daily sales basis⁵ all Sundays were subtracted from the months in which they fell, and for the J. C. Penney Co. the six national holidays on which their stores were closed were also deducted. However, for the mail-order companies, holidays were not deducted (unless they

fell on the last day of the month, when they were added to the following month), the assumption being that purchases by mail are not materially affected by holidays. Some allowance was made for usual differences in the amount of business done on the several days of the week, but the adjustment was not the same for all four concerns, since their individual experience varied.

The weights given to the sales of the different companies were chosen with regard primarily to the proportion of the total sales represented by each. Slight changes in these weights were necessary in order to take into account the following secondary factors: (1) The geographical distribution of each organization's sales; (2) the proportion of nonrural customers; (3) the variety of merchandise carried; and (4) the general reliability of the firm's reported figures as a reflection of the volume of consumer-buying.

The base-period used for the index, the 8-year period, 1920-31, was the same as for the other sales indexes recently compiled by the Bureau of Foreign and Domestic Commerce. It was chosen, as for the others, because of the lack of data for earlier periods. Moreover, the base selected has the advantage of practical comparability with the Federal Reserve Board's index of department-store sales, the average of which for 1920-31 relative to 1923-25 is 101.7.

An index adjusted for seasonal variations was also constructed, employing the method used in the index of variety-store sales. This was in essence the "ratio to moving average method" with minor changes designed to compensate for the "cyclical distortion" caused by the shortness of the period for which data are available. No adjustment was made for the changing date of Easter, because observations indicated that its effect on rural sales was relatively unimportant.

Reports are being received currently from the cooperating companies showing their sales by four separate regions—East, Middle West, South, and Far West—as well as for the country as a whole. Comparison of results for the different regions are carried regularly in monthly statements issued in mimeograph form by the Bureau. The index for the country as a whole will be carried each month on page 27 of the SURVEY.

Index of Dollar Sales of General Merchandise in Small Towns and Rural Areas
(1920-31=100)

Month	1920	1930	1931	1932	1933	1934
Without seasonal adjustment						
January.....	91.2	96.2	70.6	57.5	47.2	64.9
February.....	106.4	64.1	70.3	60.8	50.3	73.1
March.....	120.0	60.0	70.3	61.0	44.2	74.0
April.....	115.2	103.4	83.1	64.5	56.1	76.0
May.....	120.5	64.4	80.6	60.6	60.9	74.0
June.....	120.4	66.4	79.4	60.6	62.1	68.3
July.....	97.0	73.1	83.7	45.7	54.9	58.7
August.....	111.0	82.5	86.8	50.8	64.7	69.1
September.....	120.0	62.3	69.3	61.2	72.3	67.9
October.....	124.5	110.3	80.3	77.1	67.5	100.7
November.....	123.4	107.3	88.2	73.5	105.1
December.....	177.5	122.8	97.0	83.3	110.8
Annual index.....	124.9	97.8	77.4	68.1	69.2
With seasonal adjustment						
January.....	100.9	107.5	64.1	60.3	64.5	70.5
February.....	117.3	108.4	64.2	67.3	66.1	60.7
March.....	123.8	107.1	64.1	64.0	47.6	70.0
April.....	120.0	107.7	64.6	67.2	61.6	73.8
May.....	116.5	106.3	60.6	64.6	64.6	70.7
June.....	122.4	104.0	64.6	64.3	66.7	72.3
July.....	120.0	94.4	63.6	60.7	71.3	64.5
August.....	123.0	95.9	70.5	58.5	75.2	70.2
September.....	124.4	93.2	70.0	61.0	73.0	68.8
October.....	124.5	90.4	66.5	65.2	76.6	69.1
November.....	124.7	87.6	67.7	60.8	85.4
December.....	125.1	86.5	68.8	58.7	77.7

¹ This index was constructed in the Marketing Research and Service Division by E. Holmes Turner, formerly with the division, and Miss Babs Osborne.

² New indexes of variety store sales and of dealers' sales of new passenger automobiles were described in the March and April 1934 issues, respectively, of the Survey of Current Business.

³ Although many of the J. C. Penney stores are located in larger places a major share of the trade at these stores probably comes from the surrounding country.

⁴ The treatment is the same as for the variety store sales index which is described on p. 19 of the March 1934 issue.

⁵ After calculation of the number of working days in each month, the number of working days in an average or standard-length month was computed. The sales in each month were then adjusted to a standard-length month basis (equivalent to an average daily sales basis, but possessing certain practical advantages) by applying the ratio of the number of days in the standard-length month to the number of days in the particular month concerned.